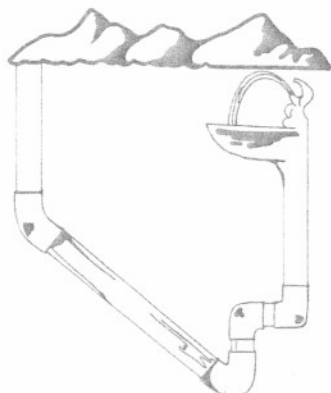


Water Lines



Water Lines is the resource newsletter and calendar of the Nevada Drinking Water and Wastewater Training Coalition.

Volume 12 Spring 2004 issue

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Special Insert The rewards of board orientation

Rural Community Assistance Corporation funds *Water Lines* through a contract with the Nevada Division of Environmental Protection.

Editor, Abigail Johnson, RCAC

Editor and Production,
Julia Helmreich, RCAC

Featured Systems: Winnemucca, Lyon County Public Works, Pyramid Lake Paiute Tribe

By Marci Cary, Sierra GIS & Cartography

Collecting and maintaining current utility infrastructure information is key to effective utility administration and decision-making. Accurate water system maps and infrastructure inventories are also requirements of programs such as Homeland Security, GASB34, the Clean Water Act, and the new Arsenic drinking water standards.

Featured Systems: GIS

ware and hardware; provide a template database to track infrastructure inventories and maintenance records; and train on GIS software use.

Three of the participating systems are featured in this article: the City of Winnemucca, Lyon County Public Works, and the Pyramid Lake Paiute Tribe.

In 2001, Nevada Rural Water Association (NvRWA) received a U.S. Department of Housing and Urban Development grant to introduce and implement Geographic Information Systems (GIS) technology to rural Nevada water systems. Through the grant, Sierra GIS & Cartography is now working with more than 80 systems to build comprehensive maps and databases of utility infrastructure in GIS format; help system managers purchase GIS soft-

A comprehensive utility infrastructure requires that all available data is entered into the database. Data is in a variety of formats and is often in different units and coordinate systems. Paper maps are typical in small Nevada towns, are hand drawn and often are the only remaining copy. Maps also commonly exist in digital format in programs such as AutoCAD. Often, rural utilities have paper copies of AutoCAD as-built maps but not

(Continued on page 2)

Share your expertise with operators across the state

By Crystel Montecinos, Nevada Cooperative Extension and UNR

Do you have a special skill or area of expertise to share with other Nevadans? Contact the Nevada Cooperative Extension and the University of Nevada (UNR) College of Agriculture, Biotechnology and Natural Resources today.

We are looking for speakers and trainers to help fill water operator education needs. For the past four years, the videoconference program has effectively brought training to some of Nevada's smallest water systems.

Nevada water system operators are talented. From meter readers and pump mechanics to managers and board members, many of us have valuable skills and training talent.

Training is a great way to connect with operators of all skill levels, and we can help you organize your information for videoconference format. Topics can include utility management, laboratory techniques, centrifugal pump maintenance and more. Questions? Call Crystel Montecinos, UNR, at 775/784-6853.

(Continued from page 1)

digital versions. Much of the work done in the 1960s to 1990s exists in this format. Some rural utilities have long-term employees with substantial knowledge of the system's infrastructure in their heads, but it's not on maps.

Winnemucca

Before receiving the GIS grant, Winnemucca's outdated water and sewer maps were accessible only to those with AutoCAD experience. "This put the city in a bind, since our engineering-technician position was eliminated during the mining downturn several years ago, and we were left without an AutoCAD operator," said Winnemucca city manager/engineer D. Stephen West, P.E. West added that the program helped to update mapping and databases; field verify infrastructure; train personnel on GIS technologies; more effectively manage and analyze systems; and print maps and access data in-house, without using expensive consultants.

Sierra GIS first built a comprehensive map of the city's water, storm water and wastewater systems from existing AutoCAD drawings. The drawings were quite detailed, but were out of date, and the data was inaccessible. The Humboldt County Assessor's office provided up-to-date parcel and street centerline base maps. The data sets included information for the utility GIS, such as parcel numbers, street names and parcel addresses.

Then, we installed hardware and software map book utility tables. The program now enables the city to print a set of utility map books with the press of a button. Field maintenance staff will use the books to easily locate infrastructure features.

Finally, we scanned, digitized and geo-referenced a water pressure map. The contours were labeled with water pressure and elevation data. This map can now be easily reproduced and overlaid.

The GIS has the added benefit of a built-in database. Winnemucca plans to use it to track fire flows and to analyze its water system for improvements. The city also plans to use Global Positioning System (GPS) to document infrastructure locations and reflect the information accurately on its utility mapping system.

Lyon County Public Works

Lyon County's population increased almost 50 percent during the past decade. Mike Nelson, Lyon County Public Works, says the utility has been trying to keep up with the growth. It

has also been challenging for maintenance crews who often receive a work order for a water hook-up and cannot find the street location. Lyon County Utilities operates 13 water and wastewater systems.

We first inventoried existing data and determined its current format and location. Maps of the utility infrastructure ranged in dates from the early 1900s to the present. Some maps existed only in paper; and digital subdivision maps existed for specific areas, but were not tied into one comprehensive map.

The inventory helped to identify maps that had been lost, and map format and location. Paper maps were then scanned and digitized. Lyon County is now creating a standard for drawings to ensure data will easily incorporate with its GIS. Lyon County's software and computer hardware was upgraded.



At this time, the database consists mostly of land base and related information. The system is used primarily for generating maps for board meetings, study sessions, and specific projects, and is structured to provide information such as location, parcel ownership, water and sewer service availability, and size, age, condition and pipe material.

In the future Lyon County hopes to incorporate GPS data and training into its GIS program. The more data it tracks using GIS, the more valuable the GIS will become.

Pyramid Lake Paiute Tribe

Pyramid Lake Paiute Tribe used ArcView 3.2 for wetlands, noxious weed and vegetation mapping, range management, and stream monitoring before receiving the NvRWA GIS grant.

Initially, we converted all of the existing data into the same coordinate system, projection and data format. We obtained parcel base maps and street centerline maps from Washoe County; and then converted the tribe's paper maps into a digital GIS format and projected the data to match the existing data.

In phase two, we advised the tribe on computer software and hardware. The tribe purchased a wide format plotter, upgraded its computer hardware system, and upgraded its GIS software. During phase three, we provided software training.

In the future, the tribe will GPS the system where data is missing and field check its maps. The tribe is also currently developing a Comprehensive Resource Management Plan to overlay different data sets of the GIS with each other.

For more information, contact Bob Foerster, Nevada Rural Water Association, at 775/783-7225. ♣

Disinfection byproducts monitoring now required for small systems

By Andrea Seifert, Nevada State Health Division

Does your water system use disinfection? If it is a Community Water System (CWS) or a Non-Transient Non Community (NTNC) Water System, you may need to monitor for disinfection byproducts (DBPs).

The State Board of Health adopted the Disinfection Byproducts Rule (DBPR) on Sept. 8, 2000. The compliance date for the DBPR depends on the size and type of system. Surface water systems serving more than 10,000 people had to comply by Jan. 1, 2002; surface water systems serving less than 10,000 people and all groundwater systems must comply beginning Jan. 1, 2004. This new rule requires certain public water systems to perform additional monitoring for disinfectant byproducts and chlorine residuals in the distribution system.

Under the DBPR, all CWS or NTNC that add a disinfectant must monitor the following byproducts in the distribution system: Total trihalometanes (TTHM) with a maximum contaminant level (MCL) of 0.080 mg/L;

Five haloacetic acids (HAA5) with an MCL of 0.060 mg/L; Bromate with an MCL of 0.010 mg/L.

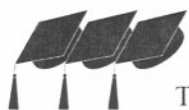
Monitoring frequency for TTHM and HAA5 disinfection byproducts depends on the type and size of the system. A "Disinfection Byproducts Sample Plan" must be submitted to and approved by the state before monitoring begins. For groundwater systems, wells drawing from the same groundwater aquifer may be considered to be one treatment plant. After DBP plan approval, monitoring and reporting will begin. Monitoring results must be reported to the State either quarterly or yearly, depending on monitoring frequency.

After two years of monitoring, the state will consider reduced monitoring for systems that demonstrate low concentrations of TTHM and HAA5, ≤ 0.040 mg/L and ≤ 0.030 mg/L, respectively. Surface water systems must also have an average Total Organic Carbon (TOC) level ≤ 4.0 mg/L to receive reduced monitoring.

Systems using ozone must monitor monthly for bromate in their treated water. Systems that use chlorine dioxide have additional requirements that are not discussed in this article.

Water systems also must monitor and record the chlorine residual values at the same time and location as their coliform monitoring. Systems that use chlorine must measure either free or total chlorine. Systems that use chloramines must measure either combined or total chlorine. These values are reported to the state quarterly.

For more information, contact Andrea Seifert, 775/687-4750 ext. 236. ♻️



New Nevada operators certified

These operators passed entry level water certification exams for distribution and treatment grades 1 & 2. Congratulations !

Distribution grades 1 & 2

Marc Avery, D-1; Gerald Bender, D-1; David Carlson, D-1; John Devaney, D-1; Wilbur Haley, D-1; Theodore Kisebach, D-1; Theodore Krominga, D-1; Joe Lopez, D-1; James Markovich, D-1; Michael Parrish, D-1; Richard Pickworth, D-1; J. Eric Rasmussen, D-1; Paul Robb, D-1; Bud Schoenfeld, D-1; Lisa Thayer, D-1; Brent Smith, D-1; Donnie Wilson, D-1; Frank Woessner, D-1; Jared Wolfley, D-1; Tom Clifton, D-2; Dennis Grafton, D-2; Patrick Heath, D-2; Antonio Mendive, D-2; James Poulsen, D-2; Fritz Sawyer, D-2; Virgil Schrauben, D-2; Ryan Swirczek, D-2; James Walker, Jr., D-2; Leonard Willett, D-2.

Treatment grades 1 & 2

Gregory Bortles, T-1; Travis Bunkowski, T-1; Steven Henderson, T-1; Patrick McKay, T-1; Kyara Okazaki, T-1; Robert Olsen, Jr., T-1; J. Eric Rasmussen, T-1; Lisa Thayer, T-1; Stephen Anderson, T-2; Jonathan Farnsworth, T-2; Dennis Grafton, T-2; John Hulett, T-2; Ben Pena, Jr., T-2; Mark Walters, T-2; Leonard Willett, T-2. ♻️

The Spigot Q & A



Q.1. What protective devices are used to keep operators and equipment from being harmed by electricity?

A.1. Fuses, circuit breakers, and grounds.

Q.2. Why should water treatment plants have at least two sedimentation basins?

A.2. To allow for maintenance, cleaning and inspecting basins without requiring a plant shutdown.

Source (Qs 1 and 2): Water Treatment Plant Operation, Vols I and II, K. Kerri.

Q.3. Which water treatment process is considered most effective in removing volatile organic chemicals?

A.3. Air stripping

Q.4. A home treatment device cannot be used to:

A.4. Increase water pressure.

Source (Qs 3 and 4): AWWA's monthly publication Opflow.

Crystel Montecinos, Program Development Specialist with the UNR Cooperative Extension, prepares The Spigot. ♻️

SWAP can reduce monitoring costs, protect resource

By Jim Balderson, Nevada State Health Division

The Safe Drinking Water Act Amendments (SDWA) of 1996 required states to develop and implement Source Water Assessment Programs (SWAP) to analyze existing and potential threats to the quality of public drinking water throughout the state. Source water is the groundwater and surface water that provides drinking water for a public water system. The Nevada State Health Division, Bureau of Health Protection Services (BHPS) is the agency with primacy for SWAP development and implementation.

The 1996 amendments required the state of Nevada to delineate wells, springs and intakes that are public drinking water sources, identify potential contaminant sources within the delineated area, assess water systems' contamination susceptibility and inform the public of the results.

Protecting the source

Nevada completed the EPA mandated assessments in 2003 as required. This spring, BHPS will provide each Community Water System with the SWAP summary for inclusion with the Consumer Confidence Report. Later in the year, each water system will receive a report with the results of the source water assessments. Originally, it was anticipated that the SWAP information would be available for public review and education. Now, with increased concern about

security, the governing board and water system management should review and act upon information in the assessment report to protect water resources and SWAP information.

Monitoring schedule and SWAP

Nevada's SWAP also provides the ability to reduce source specific water quality monitoring through the issu-

IT IS CONSERVATIVELY ESTIMATED
THAT WATER SYSTEMS
THROUGHOUT THE STATE HAVE
REALIZED \$5.5 MILLION DOLLARS
IN REDUCED MONITORING COSTS.

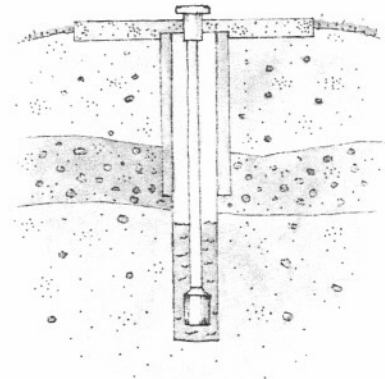
ance of a "waiver" for certain groups of contaminants if low vulnerability to contamination can be demonstrated. BHPS provides water quality monitoring schedules (commonly referred to as "Attachment A") to all Nevada public drinking water systems. Attachment A provides a "customized" monitoring schedule for each drinking source in a water system. It also indicates whether a monitoring waiver can be applied for or has been granted for a specific contaminant group. Different contaminant groups may have different monitoring requirements. Some contaminant groups may be eligible for waivers if low vulnerability to potential contamination is established and water quality monitoring requirements

have been met; waivers are not allowed for some contaminant groups.

Contaminant groups that require monitoring are indicated on rows on the left side of the Attachment A. The year monitoring is required is indicated in the column at the top of the schedule. Some contaminant groups may require water quality monitoring in specific year to renew the waiver; some contaminant groups may not. "Form B" is the BHPS mechanism used to apply for or renew a waiver. BHPS will mail you a Form B if you don't already have one.

SWAP reduces monitoring costs

Nevada's SWAP has been designed to take advantage of all waivers that EPA allows. It is conservatively estimated that water systems throughout the state have realized \$5.5 million dollars in reduced monitoring



costs. water systems are encouraged to review and follow the source specific monitoring requirements presented on Attachment A. BHPS also encourages your participation in the Nevada Division of Environmental Protection's Wellhead Protection Program (WPP). Waivers that were not granted during the initial Source Water Assessment may be considered for a waiver at a future date if a WPP is implemented.

For more information, contact Jim Balderson, at 775/687-6615 ext. 228.

Nevada Water Fair

Eureka, Nevada • June 2-3, 2004

The Water Fair brings together operators, managers and board members of small water utilities for technical, managerial and financial training.

Sponsored by:
Rural Community Assistance Corporation

Financial Management Basics for Small Systems • Developing a Capital Improvement Plan
Rate Study Basics for Small Water Systems • Funding Options for Nevada Water Utilities

For more information or a copy of the Water Fair registration brochure, contact Stevan Palmer, RCAC, at 775/882-8887 or cell: 775/750-1884 or via e-mail at SPalmer@rcac.org

Using SWAP information to protect your community water resources

By Bob Foerster, Nevada Rural Water Association

For most systems, the immediate outcome of the Source Water Assessment Program (SWAP) is a new schedule of analysis. The SWAP is also the first step in a more comprehensive Source Water Protection Program (SWPP).

When you receive the new schedule (Attachment A), put the testing for



Mark Your Calendar!

the next year or two on your calendar. Make a note in your budget file to review the annual amount needed for analysis. Sampling is scheduled for each source of drinking water. Read and understand the assessment report. If an action is needed, such as a Wellhead Protection Program, start planning implementation.

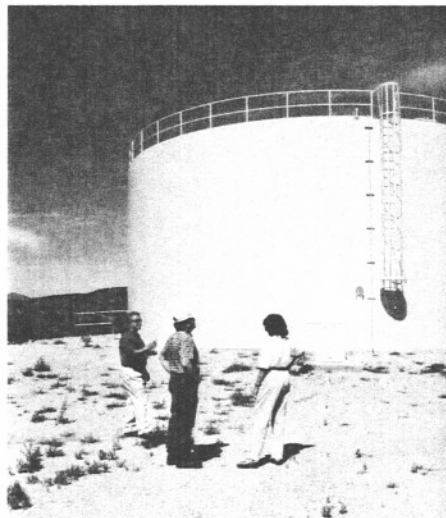
Public education and community involvement are emphasized in the SWPP. The results of the SWAP must be included in the 2004 annual Consumer Confidence Report (for 2003 data). For the report due by July 1, 2004 the actual source water assessments must be made available to the public. Use the SWAP summary to replace the short paragraph on the existing template with the heading *Source Water Assessment and its Availability* or attach the SWAP language to the CCR.

Source Water Protection Program

The source water assessment identifies threats to sources of drinking water. Surface water, runoff or groundwater infiltration can carry contaminants. Groundwater can become contaminated through infiltration from surface sources, injection of contaminants, or naturally occurring substances. A SWPP may be developed after information on significant potential contamination sources has been gathered. The SWPP

is a voluntary, preventive program. Locally, best management practices are implemented to effectively control contamination. The program encourages states and localities to go beyond source water assessments and manage identified sources of contamination in a manner that will protect drinking water supplies.

Look at EPA SWPP bulletins to identify management activities. The bulletins include Storm Water Runoff; Septic Systems; Above Ground and Underground Storage Tanks; Pesticide Application; Sanitary Sewer Overflows and Combined Sewer Overflows; and Managing Small Quantity Chemical Use to Prevent Contamination of Drinking Water.



Utilities should develop Source Water Protection Programs after gathering information on significant potential contamination sources.

A SWPP involves community support, public education, land use planning, and planning for emergencies.

The three steps in a SWPP are: Local Teams, Management Measures and Contingency Planning. The team should consist of individuals who will focus on the primary objective of protection of drinking water sources,

and should include at least one representative who is actually employed by the public water system. They should recognize the constraints from ongoing activities in the watershed.

The team should determine options for managing the potential contaminant sources identified in the SWAP. The goal is to either reduce or eliminate the potential threat to drinking water supplies through federal, state, or local regulatory or statutory controls, or by using voluntary measures centered around an involved public. Avoid unnecessary adverse effects on other activities in the watershed.

SWPP contingency plans include long and short-term drinking water supply replacement strategies in the event of contamination or physical disruption. Existing Emergency Response Plans should be reviewed in light of SWAP findings.

Funding

Wellhead Protection Program funding, for systems with endorsed plans, covers spring or well site fencing, abandoned well inventory and sealing, and community collection/disposal events for household hazardous wastes, batteries and other items. It is anticipated that funding will continue for similar recharge area protection measures.

Resources and Contacts

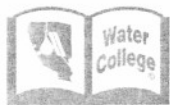
For more information on SWAP, go to www.epa.gov/safewater/protect/swap.html; or go to www.epa.gov/safewater/dwa/electronic/presentations/swp/swpbmp.pdf for a slide presentation on source water protection.

Call Arthur Leger or Nevan Kane at 775/687-4670 for information on the NDEP Wellhead Protection Program; or Jon Anderson, NvRWA's Groundwater Technician, at 775/783-7225.

RESOURCE ROUND-UP

AWWA resource materials are available. Operator Certification Study Guide; Water Treatment Operator Handbook; Water Distribution Operator Training Handbook, 2nd ed.; Water System Security: A Field Guide; Plain Talk About Drinking Water; Let's Talk Safety – 2004 Safety Talks; GIS Tools for Water, Wastewater and Stormwater Systems; Part One: Water Sources, 3rd ed.; Part Two: Water Treatment, 3rd ed.; Part Three: Water Transmission and Distribution, 3rd ed.; Part Four: Water Quality, 3rd ed.; Part Five: Basic Science Concepts and Applications, 3rd ed.; Recommended Practice for Backflow Prevention and Cross-Connection Control; and Basic Science Concepts and Applications for Wastewater. To order call 800/926-7337 or go to www.awwa.org.

Water math workbook are available. Water Technology Training Programs, Inc. offers a water math book that for treatment operators and distribution operators. The book comes with a CD that demonstrates each problem to completion. The math book is designed for treatment and distribution operators, grades 1-5. To order, go to www.ca-nv-awwa.org or call 909/481-7200.



Protecting Your Community's Assets: A Guide for Small Wastewater Systems is available free from the National Environmental Training Center for Small Communities. The security vulnerability self-assessment guide is specific to small community wastewater systems. To order, call 800/624-8301 or download a PDF version at NETCSC website at www.netc.wvu.edu.

EPA's asset management handbook presents basic concepts of asset management and provides tools to develop an asset management plan. The guidebook describes steps to inventory, prioritize, plan and carry out an effective asset management plan. For a copy, go to EPA's website at www.epa.gov/safewater/small-sys/pdfs/guide_smallsystems_asset_mgmnt.pdf.



Renewable energy workshops will be offered in April by the USDA Rural Development and Nevada Office of Energy.

No registration is required for the free workshops on Nevada's renewable energy resources, how to develop projects and how to apply for grants. Workshop locations for April 5-8 include Lovelock, Winnemucca, Battle Mountain, Elko, Ely, Eureka and Fallon. Locations for April 19-22 include Caliente, Logandale, Pahrump, Amargosa Valley, Tonopah, Hawthorne and Yerington. For more information, contact Jeneane Harter at 775/232-3567 or e-mail Jeneane@hitechcommunications.com.

Water operator certification fees raised

By Steve Brockway, Nevada State Health Division

Water operator certification fees have been increased for the first time since 1991. The testing and renewal fees have been kept low. However, the fees have now been raised to cover the Bureau of Health Protection Services' (BHPS) increased expenses.

As of February 1, the full certification testing fee is \$84; an OIT is \$57; renewal is \$30; and reciprocity is \$57. Reinstating an expired certificate is still \$100. An operator who does not renew by the expiration date can reinstate within six months of expiration. To convert an OIT to a full certification is now \$30. All certifications expire on December 31 of the year of expiration. If your certification expires on Dec. 31, 2004, you have until June 30, 2005 to reinstate; after that you must retest. Questions? Go to the BHPS web site at <http://health2k.state.nv.us/> or contact Steve Brockway at 775/687-6615 ext. 235.

University of Nevada, Reno
Colleges of Agriculture, Biotechnology, and
Natural Resources & Cooperative Extension

2004 Videoconference Training Calendar

UNR videoconference classes for water system operators and managers are available in most communities. To request a workshop in your area, call Crystel Montecinos at 775/784-6853 or e-mail: xtelle@cabnr.unr.edu.

Community College of Southern Nevada
Wastewater & Water Technology Program

Info: LeAnna Risso, 702/434-6600 ext. 6418.

WWET training in Clark County

Info: Gladys Alford, 702/258-3834; see www.wwet.org for a current training calendar.

State of Nevada Water Certification Exams

All exams will be proctored some time during the week of the date listed. Applications are due to the state (Steve Brockway) 30 days before exam dates. A proctor will contact examinees to schedule testing. For 2004, remaining exam dates are June 9, Sept. 15 and Dec. 15. Info: Debra Kaye, 775/834-8114.

Wastewater Certification Board testing

Wastewater certification exams are given in March, June, October and December; for locations and information, call 702/433-1498 or go to www.nvwea.org.

Training Calendar 2004



April 13-16—Las Vegas—CA-NV-AWWA 2004 Spring Conference, JW Marriott Resort. Info: 909/481-7200 or www.ca-nv-awwa.org.

April 22—Las Vegas—RCAC Understanding financial statements, budgets and audits. Info: Steve Palmer 775/882-8887.

May 4-6—Reno—2004 Tribal Drinking Water Training Intensive, co-sponsored by the Pyramid Lake Paiute Tribe and EPA-Region 9, Peppermill Hotel-Casino. Agenda will include variety of drinking water topics in Indian Country. Info: Lela Leyva 775/574-1000 ext. 245 or e-mail lleyva@plpt.nsn.us

May 27—Las Vegas—RCAC Operator Certification Exam Preparation Grade 1 & 2 – Water distribution and treatment. Info: Steve Palmer 775/882-8887.

April 23—Reno, Las Vegas and rural locations TBA—UNR Videoconference Workshop, General Water Chemistry, 9 a.m. - Noon, (3 hours), approved for 3 contact hours of continuing education. Info: Crystel Montecinos, 775/784-6853.*

May 21—Reno, Las Vegas and rural locations TBA—UNR Videoconference Workshop, Exam Preparation, 9 a.m. - Noon, (3 hours), approved for 3 contact hours of continuing education. Info: Crystel Montecinos, 775/784-6853.*

June 2-3—Eureka—RCAC Water Fair: Funding options for small communities; capital improvement planning, rate setting and budget analysis, financial management of a small utility. Info: Steve Palmer 775/882-8887.

June 4—Nevada locations—Operator Certification Advisory Board Meeting, 9:30 a.m., videoconferenced to several locations TBA. (Earn .10 CEUs for every hour attended.) Info: Steve Brockway, 775/687-6615, ext. 235.

June 7—Reno—Nevada Wastewater Operators Workshop at National Operator Training Conference (June 7-10), Silver Legacy. Info: www.nvwea.org.

June 13-16—Orlando, FL—AWWA Annual Conference and Exposition Info: www.awwa.org.

June 25—Reno, Las Vegas and rural locations TBA—UNR Videoconference Workshop, New State and Federal Regulations, 9 a.m. - Noon, (3 hours), approved for 3 contact hours of continuing education. Info: Crystel Montecinos, 775/784-6853.*

July 23—Reno, Las Vegas and rural locations TBA—UNR Videoconference Workshop, Introduction to Disinfection, 9 a.m. - Noon, (3 hours), approved for 3 contact hours of continuing education. Info: Crystel Montecinos, 775/784-6853.*

August 26—Elko—RCAC Operator Certification Exam Preparation Grade 1 & 2, Water distribution and treatment. Info: Steve Palmer 775/882-8887.

August 27—Reno, Las Vegas and rural locations TBA—UNR Videoconference Workshop, Monitoring Requirements for Small Systems, Proper Sampling Techniques and Water Characteristics, 9 a.m. - Noon, (3 hours), approved for 3 contact hours of continuing education. Info: Crystel Montecinos, 775/784-6853.*

September—Phoenix, AZ—EPA Region 9 Tribal Source Water Assessment Program (SWAP) Training. Info: Eric Byous e-mail byous.eric@epa.gov.

September 23-25—Pimm—20th Annual Tri-State Seminar, training for water and wastewater industry professionals. Info: www.tristateseminar.com.

September 24—Reno, Las Vegas and rural locations TBA—UNR Videoconference Workshop, Exam Preparation, 9 a.m. - Noon, (3 hours), approved for 3 contact hours of continuing education. Info: Crystel Montecinos, 775/784-6853.*

October 12-15—Sacramento, CA—CA-NV-AWWA Fall Conference. Info: 909/481-7200 or www.ca-nv-awwa.org.

October 22—Reno, Las Vegas and rural locations TBA—UNR Videoconference Workshop, Cross Connection Control, 9 a.m. - Noon, (3 hours), approved for 3 contact hours of continuing education. Info: Crystel Montecinos, 775/784-6853.*

November 18 or 19—Reno, Las Vegas and rural locations TBA—UNR Videoconference Workshop, TBD, 3 p.m. to 5 p.m., (2 hours), approved for 2 contact hours of continuing education. Info: Crystel Montecinos, 775/784-6853.*

December 10—Reno, Las Vegas and rural locations TBA—UNR Videoconference Workshop, Exam Preparation, 9 a.m. - Noon, (3 hours), approved for 3 contact hours of continuing education. Info: Crystel Montecinos, 775/784-6853.*

* Locations and dates are subject to change; registration is required.

This symbol designates training pre-approved by the Nevada State Health Division for continuing education units (CEU) credit. Other training may be eligible for CEUs but is not yet pre-approved. Before attending any training, contact the Health Division at 775/687-6615 ext. 235 for approval. Ten hours of approved training equals 1 CEU. A different ratio applies for safety training. Contact Steve Brockway at 775/687-6615 ext. 235 for details.

Nevada Drinking Water and Wastewater Training Coalition

American Water Works Association California/Nevada Section

www.ca-nv-awwa.org
Philip Walsack, Smaller Utilities
Committee Chair, 775/841-3131
Nicole Schreuder, Education Mgr., 909/291-2101

Indian Health Service

Dominic Wolf, 775/784-5327

Nevada Division of Environmental Protection

www.ndep.nv.gov/index.htm
Adele Basham, DWSRF, 775/687-9488
Bill Coughlin, AB 198 Water Grant Program,
775/687-9422
Nevan Kane, Wellhead Protection,
775/687-9426

Nevada Rural Water Association

www.nvrwa.org
888/884-2055
Bob Foerster, Director
John Allred
Jon Anderson
Curtis Duff
David Miller
John Scovil

Nevada State Health Division

www.state.nv.us/health/bhps
775/687-6615
Jim Balderson, SWAP, ext. 228
Steve Brockway, CEU approval, ext. 235
Dana Pennington, ext. 237

Nevada Water Environment Association

www.wef.org
Starlin Jones, 775/861-4104
Eric Leveque, 702-792-3711

Public Utilities Commission of Nevada

www.state.nv.us/puc
Steve McGoff, Utility Engineer, 775/687-6040

Rural Community Assistance Corporation

www.rcac.org
John Dailey, 775/882-8887
Abby Johnson, 775/882-0296
Steve Palmer, 775/882-8887
Lisa Thayer, 775/882-8887
Jean Thompson, 775/882-8887

U.S. Environmental Protection Agency, Region 9

www.epa.gov/region09
Marvin Young, 415/972-3561

USDA-Rural Development

www.usda.gov/rus/water/index.htm
Mike Holm, 775/887-1222, ext. 26
Kay Vematter, 702/262-9047 ext. 113

University of Nevada, Reno Dept. of Civil Engineering

Dean Adams, 775/784-1474

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UNR Environmental & Resource Sciences and Nevada Cooperative Extension

www.unce.unr.edu/swp
Crystel Montecinos, 775/784-6853
Mark Walker, 775/784-1938

Water/Wastewater Education and Training Consortium of Southern Nevada — WWET

www.wwet.org
Marie Pollack, Chair, 702/298-3113
Gladys Alford, Registrar, 702/258-3834

NDWWTC Board Members

2003-2005

Bob Foerster, Chair
775/783-7225
foerster1@pyramid.net

Dean Adams
775/784-1474
vdadams@unr.nevada.edu

Cameron McKay
775/588-2571
rhgid@aol.com

Kirk Peterson
775/329-7757
kcpeterson@gbis.com

Mark Walker
775/784-1938
mwalker@unr.edu



Rural Community Assistance Corporation

3120 Freeboard Drive, Suite 201

West Sacramento, CA 95691

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NDEP
333 W NYE LN
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Water Lines

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Water Lines Special Insert

The rewards of board orientation

By Jean Thompson, Rural Community Assistance Corporation

Why conduct board orientation?

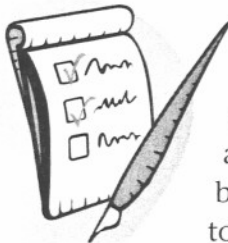
Board orientation is vital to the health of the utility and to the success of the board, its management and its customers. Newly elected or appointed members need to know what to expect and what is expected of them. Meetings, committee assignments, managerial and fiduciary responsibilities,

EFFECTIVE ORIENTATION
TAKES TIME AND EFFORT.

potential conflicts of interest and compliance with the open

meeting law are all challenges for the new board member.

Orientation can clarify key responsibilities for both new and old board members. New members need to understand the history and purpose of the utility. If board members are going to make informed decisions, they need appropriate tools and information. To develop board members who make policy, get them started on the right foot with board orientation.



Develop effective communication

Orientation also opens lines of communication between manager and board member in a formalized and structured way which can help the manager develop a solid relationship with a new board member from the start. The general manager can start by encouraging new members to ask questions. Answering board member questions is time well spent and fosters a posi-

tive working relationship. Take the initiative and ask questions to get new members to open up.

Now that you understand why orientation is important, let's look at what's involved in the process.

Who should conduct orientation?

First, decide if the manager, other staff, board members, or outside consultants are going to orient new board members. You should also decide if one person or a team will conduct the orientation. All these approaches can be effective, and you might want to mix and match them to suit your needs. Options include one-on-one meetings with the general manager, or with the manager and the board chair. Involve other board members and other staff as mentors or experts; and remember to comply with the open meeting law. As you work to develop board member skills, don't overlook the insights and expertise that retiring board members can provide.

Conduct an effective orientation

You've decided who should participate in orientation of new board members. Now you need to decide where you will hold orientation, how you will conduct it and when it will take place. Effective orientation takes time and effort. You will need to coordinate your schedule with new board members, and make time for one-on-one meetings, informational sessions and tours of your facilities.

Set an agenda so that the new board member and all participants know what to expect. List the materials you'll provide the new board member, such as handbooks, bylaws, history, financial statements, open meeting law, and other materials that every board member needs. Provide the new board member with those materials in advance of the meeting to encourage preparation. Conduct orientation in a comfortable atmosphere

Aim for consistency

Give all your board members the same information about board service, as a group or individually. Otherwise, some members will be less informed — and it will show at board meetings. To ensure consistency,

ASSESS NEW BOARD
MEMBERS' KNOWLEDGE
DURING ORIENTATION.

standardize your orientation procedure and topics. Use an outline similar to the sample on page 4 as a guide. Assess new

board members' knowledge during orientation. Once you have talked with board members, you will get a sense for how much or how little you need to guide them.

Your orientation should include informal steps that build a level of comfort with the new board member. Your communication and relationship with board members can be strengthened by informal contacts, like lunch, coffee, or social hour prior to the board meeting.

What to include in your orientation

Welcome new board members to the board with a letter or phone call from the manager. Find out how much new members know about your utility right away.

Paint a complete picture of the past and future

Your utility history gives board members valuable perspective. It should tell them

how the utility started, its growth and the factors that have brought it to where it is today. This will help new board members to understand your utility's direction, philosophy and why past decisions were made. The mission statement is also a must-learn for new board members. If your board members don't know the mission, how can they make effective decisions? The answer is they can't.

Help board members understand their roles

Teaching new board members about their roles and responsibilities is important for board and staff alike. Distinguishing between board and man-



ager responsibilities is key for a successful and respectful relationship between the board and the manager.

Here's a rule of thumb to sort it out:

The board handles the *what* — adopting policies and planning for the utility. The general manager handles the *how* — implementing policies and carrying out planning efforts. The board makes decisions that set direction for the *whole utility*. The utility general manager makes decisions that affect *individuals*.

One of the best ways to explain board member roles is to put them on paper. Each board member should have a job description that outlines board responsibilities and duties as an officer or committee member. Because circumstances and responsibilities change, update job descriptions whenever new board members come on board. The manager's job description is also helpful to understand the different roles of board and staff. If the board has delegated certain duties to the manager, include that list in the orientation materials.

Be sure to include your complaint policy in your orientation kit and talk it through with new board members. New board members need to understand the policy, and to refer complaints to the general manager. Teach your board rookies to relay complaints properly through the general manager, rather than try to solve customer or employee problems themselves. Adherence to this approach is essential for successful board-management relationship.

Know the rules

The utility bylaws or rules and regulations should be an essential element in your orientation kit. Copies

POLICIES OFFER IMPORTANT BACKGROUND...

of the past board meeting minutes provide insight on current issues and decisions. New board members must know that minutes are the legal record of actions the board took at a meeting, and they need to review the minutes before they approve them. Policies offer vital background, because the board makes decisions based on existing policies, modifies policies or makes new ones.

Avoid conflicts of interest and liability

One of the toughest areas to clarify for board members is the potential for conflicts of interest. Include a conflict of interest or code of ethics statement for your board rookies to review and sign. Nevada has state laws on the issues of conflict of interest to guide board members. In addition, members of the board are all required to file financial disclosure documents by January 15 and annually thereafter. Explain insurance coverage, if any, that your utility provides for board members.

How the manager and current board members can help new board members

Even though they may be leaders in their field, new board members still need to know how to contribute to meetings and make sound decisions. Explain the issues before voting, and explain the issues your utility faces. You can do this by including meeting minutes and recaps of major issues or problems your board deals with in your orientation kit. Discuss how individual decisions affect the utility. Be sure to give the board members both sides of the issues. Explain the board's decision-making process. Walk them through these steps: making a motion, discussing an issue, ending discussion and voting.

Cover budgets and finance

You can't hand a budget to a board rookie and expect him or her to understand everything in it and his or her responsibilities for finances. Start with the basics — a review of what happens when a purchase order is written and sent out. Help members to understand where the money comes from and how it's allocated. Discuss the budget and explain the board's role in developing it — where they get involved and where they don't. Also review financial information the board member will receive before each meeting and how to read it.

Packaging your orientation kit

Use the checklists shown on page 4 as a sample of orientation materials to consider. The next step is to decide what should be included and what materials will make your new board members effective more quickly. Remember to review, update and upgrade your orientation kit regularly.

Sample checklist

Use this checklist as a guide or develop your own. List all important information, tours and meetings for your new board member. Then, check off topics as you cover them.

Orientation Kit:

- ☐ Board member biographies and board outlining structure
- ☐ Biography form for new member to complete
- ☐ Complaint policy statement
- ☐ Code of ethics
- ☐ Bylaws and articles of incorporation if applicable or Nevada Revised Statutes governing utility (if applicable)
Ex: NRS 318 for GID
- ☐ Mission statement
- ☐ Plan of work
- ☐ History of utility
- ☐ Policies and procedures
- ☐ Board and staff organizational charts
- ☐ Board and staff job descriptions
- ☐ Open meeting law handbook
- ☐ Meeting minutes for the past six months
- ☐ Latest financial report and independent audit
- ☐ Current budget
- ☐ Revenue sources and rate structure
- ☐ Copies of past management reports
- ☐ Capital improvement plan
- ☐ List of acronyms and definitions
- ☐ Annual calendar of meetings and milestones
- ☐ Other resources about board service

Meeting Topics:

- ☐ Orientation kit –what to read, what to bring to board meetings, what to sign and return to general manager or board chairperson
- ☐ Introduction to key staff; explanation of utility's services
- ☐ Transition form from previous board members
- ☐ Review of current issues
- ☐ Preparation for first board meeting —when, where, meeting mechanics

Nevada Resources

Nevada Open Meeting Law Handbook
www.ag.state.nv.us

Nevada Ethics Commission
www.ethics.state.nv.us

Legislative Counsel Bureau
(applicable laws and regulations)
www.leg.state.nv.us

Nevada State Library
800/922-2880 (toll free in-state)
or 775/684-3360

Aspen Publications was a resource in compiling information for this insert.

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